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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/433,677 | 11/04/1999 | SYWE N. LEE | 6762-102XX | 2847 |

167 7590 03/26/2004

FULBRIGHT AND JAWORSKI L L P
PATENT DOCKETING 29TH FLOOR
865 SOUTH FIGUEROA STREET
LOS ANGELES, CA 900172576

EXAMINER

MOE, AUNG SOE

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

2612

DATE MAILED: 03/26/2004

7

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/433,677

Applicant(s)

LEE ET AL.

Examiner

Aung S. Moe

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 06 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-13 is/are allowed.
- 6) ☒ Claim(s) 14-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 1/6/04 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings were received on 1/6/2004. The Examiner approves these drawings.

Response to Arguments

2. Applicant's arguments, see page 10+ of the remarks, filed 1/06/2004, with respect to the rejection to claims 1-7 and objection to the specification have been fully considered and are persuasive. The rejections of claims 1-7 and the objection to specification/drawing have been withdrawn.
3. Applicant's arguments with respect to claims 14-17 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

4. Claims 14-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 14 (lines 6, 7 and 10-11) and 15 (line 2), the applicant claimed the limitations "first and second photo sensing means of light-emitting element", such limitations are considered indefinite because the "photo sensing means" (i.e., Pd1 and Pd2) as shown in Fig. 2B is used for detecting the intensity of the light impinging thereon, the "photo sensing means" (Pd1/Pd2) could not "emitting" light as recited in present claimed invention. In view of this, it is

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unclear how "light-detecting element" (i.e., Pd1/Pd2) is capable of "emitting" light as recited in claims 14 and 15. Claims 16 and 17 are rejected for being dependent on the rejected claims 14 and 15.

For the purpose of rejection, the "light-emitting element" is considered as "light-detecting element".

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 14-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Takahashi (U.S. 5, 955,753).

Regarding claim 14, Takahashi '753 discloses an arrangement of light-detecting elements (Fig. 1, the photodiode 1), each light-detecting element comprising:

1) a first and a second photo-sensing means (i.e., noted the photodiodes for the Odd and Even lines as shown in Fig. 1) for generating analog signals in proportion to the intensity of the light impinging thereon (col. 3, lines 45+);

2) a first turn-on means (i.e., noted the transistor 3 connected to the control line To) coupled to each of said first and second photo-sensing means (i.e., the element 1) of one light

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detecting element (i.e., the sensor of Fig. 1), wherein said first and second photo sensing means (i.e., the element 1) of light detecting element (i.e., the photoelectric converting unit 1 of Figs. 1, 2, 5, 7 and 8) are coupled in parallel at a floating sensing point (21) through said first turn-on means (3); and

3) a second turn-on means (i.e. noted the transistor 3 connected to the control line TXe) wherein said first and second photo sensing means of adjacent light detecting elements (i.e., the element 1), respectively, are coupled in parallel at said floating sensing point (21) of one of said adjacent light detection elements (i.e., the element 1) through said second turn-on means (3).

Regarding claim 15, Takahashi '753 discloses translation means (Fig. 1, 2, 5, 7 and 8; the elements' 4, 5 and 6) coupled to said floating sensing point (21) for resetting the initial state of said floating sensing point and reading out said analog signals to a column line (col. 4, lines 20+).

Regarding claim 16, Takahashi '753 discloses said translating means Fig. 1, 2, 5, 7 and 8; the elements' 4, 5 and 6) further comprises an amplifier transistor (5) for amplifying said analog signals presenting at said floating sensing point (21) (col. 3, lines 55+).

Regarding claim 17, Takahashi '753 discloses wherein said translating means Fig. 1, 2, 5, 7 and 8; the elements' 4, 5 and 6) comprises a rest transistor (4) for resetting the initial state of said floating sensing point (21) in response to a reset signal (i.e., see Figs. 3-4; col. 4, lines 15+).

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Allowable Subject Matter

7. Claims 1-13 are allowed in view of the Applicant's remarks set forth in page 10+ the amendment received on Jan. 06, 2004.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

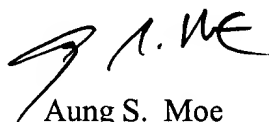
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aung S. Moe whose telephone number is 703-306-3021. The examiner can normally be reached on Mon-Fri (9-5).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber can be reached on 703-305-4929. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Aung S. Moe
Primary Examiner
Art Unit 2612

A. Moe
March 19, 2004